

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 9607  
ORDER NO. R-8905-A

APPLICATION OF READ & STEVENS, INC.  
FOR A WATERFLOOD PROJECT, EDDY COUNTY,  
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 15, 1989 and on March 15, 1989, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 12th day of April, 1989, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) At the time of both hearings this case was consolidated with Case 9606 for the purposes of testimony.

(3) The applicant, Read & Stevens, Inc., seeks authority to initiate a pilot waterflood project on its proposed Bunker Hill Unit, by the injection of water into the Penrose formation through the following described four existing wells in Township 16 South, Range 31 East, NMPM, designated and undesignated Bunker Hill-Penrose Associated Pool, Eddy County, New Mexico:

<u>WELL NAME AND NUMBER</u>	<u>FOOTAGE LOCATION (UNIT)</u>	<u>SECTION</u>	<u>PROPOSED INJECTION INTERVAL (FEET)</u>
Bogle Farms No. 1	1980'FSL- 660'FWL (L)	13	3605-3629
Dartmouth No. 1	660'FSL & EL (P)	14	3602-3622
Gulf West Mesa No. 2	660'FNL & WL (D)	24	3600-3622
Gulf West Mesa No. 3	730'FSL-1980'FWL (N)	13	3623-3647

(4) The project area should consist of that area within the boundary of the Bunker Hill Unit Area, as described below, which was the subject of Case No. 9606 and was heard in conjunction with this case:

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM  
Section 13: SW/4 NE/4 and W/2  
Section 14: NE/4 and S/2  
Section 23: NE/4, NE/4 NW/4,  
S/2 NW/4, NE/4 SW/4 and N/2 SE/4  
Section 24: N/2 NW/4 and SW/4 NW/4

(5) The wells in the project area are in an advanced state of depletion and should properly be classified as "stripper wells."

(6) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(7) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.

(8) Prior to commencing injection operations, the casing in each of the subject wells should be pressure tested throughout the interval, from the surface down to the proposed packer setting depth, to assure integrity of such casing.

(9) The injection wells or injection pressurization system for each well should be so equipped as to limit injection pressure at the wellhead to no more than 720 psi.

(10) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such a higher pressure will not result in migration of the injected waters from the Penrose formation.

(11) The operator should give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(12) The subject application should be approved and the project should be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Read & Stevens, Inc., is hereby authorized to institute and operate a pilot waterflood project in the Bunker Hill Unit Area (as described in Finding Paragraph No. (3) of this order) by the injection of water into the Penrose formation through the following described four existing wells, all in Township 16 South, Range 31 East, NMPM, designated and undesignated Bunker Hill-Penrose Associated Pool, Eddy County, New Mexico:

<u>WELL NAME AND NUMBER</u>	<u>FOOTAGE LOCATION (UNIT)</u>	<u>SECTION</u>	<u>PROPOSED INJECTION INTERVAL (FEET)</u>
Bogle Farms No. 1	1980'FSL- 660'FWL (L)	13	3605-3629
Dartmouth No. 1	660'FSL & EL (P)	14	3602-3622
Gulf West Mesa No. 2	660'FNL & WL (D)	24	3600-3622
Gulf West Mesa No. 3	730'FSL-1980'FWL (N)	13	3623-3647

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in each of the subject wells shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's district office in Artesia.

(2) Injection into each of said wells shall be through 2-3/8 inch internally coated tubing installed in a packer set approximately 100 feet above the uppermost perforation; the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak-detection device.

(3) Each injection well or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 720 psi.

(4) The operator shall notify the supervisor of the Artesia district office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(5) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

Case No. 9607  
Order No. R-8905-A  
Page No. 4

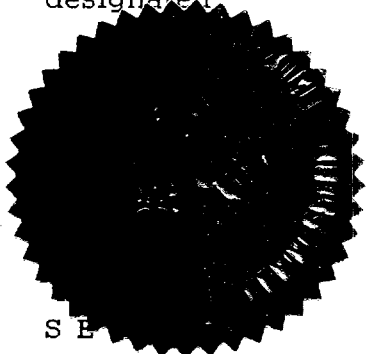
(6) The subject waterflood project is hereby designated the Bunker Hill Unit Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(7) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(8) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
*Victor J. Lyon*  
for WILLIAM J. LEMAY  
Director

S E